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EXAMINER

ROBINSON, RYAN C

ART UNIT	PAPER NUMBER
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2615

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,599	Applicant(s) TIPSMARK ET AL.	
	Examiner RYAN C. ROBINSON	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/5/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/5/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 5 objected to because of the following informalities: Claim 5 is presented as being dependent upon claim 2, but claim language suggests that it should be dependent upon claim 4, because of the reference to "fibre content" at line 1. For the purpose of examination, claim 5 will be considered as dependent upon claim 4. Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "7" has been used to designate both the hook in Fig. 1 and what appears to be a portion of the detachable wall part in Fig. 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because in Fig. 1, elements 58, and 59 appear to be pointing to the wrong components. According to the specification, as well as Fig. 2, element 58 should be 59, and vice versa. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Bøgeskov-Jensen, US Patent No. 6,522,764, published on 2/18/2003 (Hereby Bøgeskov-Jensen).

3. As to claim 1, Bøgeskov-Jensen discloses a communication device with means of delivering an audio signal to the ear of a user (Fig. 2), comprising a casing (1, 2), intended for wear at the ear (Col. 1, lines 10-12), and containing a microphone (15), a signal processing device (Col. 3 line 9), the amplifier corresponds to a signal processing device. There is a receiver for delivering an audio signal to the user's ear canal (17), and a receiver enclosure whereby the receiver enclosure has wall parts (1) and (2) forming part of the casing. The inner side surfaces of the casing in Fig. 2 form the enclosure for receiver (17), which correspond to wall parts forming part of the casing. The wall parts (1) and (2) are in co-operation with the detachable wall parts (16) to form the enclosure. The receiver is suspended from the detachable wall part (Col. 3, lines 2-3). Bøgeskov-Jensen teaches that the receiver portion (17) is suspended from (16).

4. As to claim 7, Bøgeskov-Jensen discloses in Fig. 1 that the casing comprises a lower part shaped to lie behind the ear of a person (1). The lower part has a bottom wall, two opposed side walls, the lower part (1) has two side walls and, the end wall, in

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which there is an aperture for tube (3). There is an end wall (30) whereby the detachable wall part (16) is shaped to fit between the two side walls such that the enclosure is formed by the detachable wall part, the bottom wall, the two opposed side walls (1), and the end wall (30).

5. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Gore et al., US Patent No. 4,620,605, published on 11/4/1986 (Hereby Gore).

6. As to claim 1, Gore discloses a communication device with means of delivering an audio signal to the ear of a user comprising a casing (Fig. 3), intended for wear at the ear (Col. 1, lines 11-12), and containing a microphone (16), a signal processing device" (Col. 3 lines 67-68), the amplifier corresponding to a signal processing device. There is a receiver for delivering an audio signal to the user's ear canal (17), and a receiver enclosure. The casing, (not numbered), along with a wall part (21) form an enclosure so that the receiver enclosure has wall parts forming part of the casing, which in co-operation with detachable wall parts (21) form the enclosure. The receiver, (17) is enclosed by the casing and the wall part (21). The receiver is suspended from the detachable wall part" by a suspension (53).

7. As to claim 2, Gore discloses that the receiver is suspended from the detachable wall part by means of a flexible tube leading from the receiver outlet to a sound delivering orifice in the detachable wall part. The tube (52) is disclosed as supporting

the receiver (17), which is further connected to an opening at (13), corresponding to a sound delivering orifice. The receiver (17) is also suspended by at least one other flexible suspension which is fastened to the detachable wall part (53). Gore teaches that the tubes (52) and (53) are made of soft rubber or a similar resilient material (Col. 4, lines, corresponding to flexible.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenstand, US Patent No. 3,359,377, published on 12/19/1967 (Hereby Rosenstand).

10. As to claim 1, Rosenstand discloses a communication device with means of delivering an audio signal to the ear of a user (Fig. 5), comprising a casing (33) intended for wear at the ear. Rosenstand suggests that the hearing aid is to be worn behind the ear, specifically on the casing part with the U-shaped cross-section (Col. 3, lines 1-3).

Rosenstand does not specifically teach that the hearing aid in the embodiment shown in Fig. 5 contains a microphone, a signal processing device, and a receiver, rather, Rosenstand describes those parts as 'hearing aid components' (Col. 3, line 5).

However, a hearing aid by definition has these parts, and furthermore Rosenstand goes into detail about the components in the first embodiment in Fig. 1, where the hearing aid has a microphone (19), a tone control (28), corresponding to a signal processing device, and a receiver (27). Therefore it would have been obvious to one skilled in the art at the time of applicant's invention to include a microphone, a signal processing device and a receiver as the components in Fig. 5.

Rosenstand teaches that the receiver enclosure has wall parts forming part of the casing, the side wall parts being the bottom and side wall parts of casing (33). The wall parts of casing (33) are in co-operation with detachable wall parts (34) to form the enclosure. The receiver is shown in Fig. 5 attached to the detachable wall part (34), and is therefore suspended from the detachable wall part.

11. As to claim 7 the casing (33) comprises a lower part shaped to lie behind the ear of a person. Rosenstand suggests that the hearing aid is to be worn behind the ear, specifically on the casing part with the U-shaped cross-section (Col. 3, lines 1-3). In Fig. 5 the U-shaped casing part (33) as shown has a bottom wall, two opposed side walls and an end wall, the end wall is the wall closest to the tube (36). The detachable wall part (34) is shaped to fit between the two side walls of the casing (33) as shown in Fig.

5. The enclosure, therefore is formed by the detachable wall part (34), as well as the bottom wall, the two opposed side walls and the end wall of the casing (33).

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gore et al., US Patent No. 4,620,605, published on 11/4/1986 (Hereby Gore) as applied to claim 1 above, in view of Arndt et al., US Patent No. 5,204,917, published on 4/20/1993 (hereby Arndt).

13. As to claim 3, Gore discloses a communication device (Fig. 3). Gore does not expressly disclose that electrical connection pins are provided, which traverses the detachable wall part, such that soldering points on the receiver are connectable to connection pins at one side of the detachable wall part in order that an electrical signal may be served at the receiver by gaining contact with the connection pins at the other side of the detachable wall part. Instead Gore teaches an electrical connection to the receiver via wires (23) through an aperture in the support structure (54).

Arndt discloses in Fig. 6, a communications device where electrical connection pins are provided which traverses the detachable wall part (70), such that soldering points on the receiver are connectable to connection pins at one side of the detachable wall part. The terminals that are external to the detachable wall part lead to internal terminals (68), which then lead to wires (24), which is connected to receiver (22) (Shown in Fig. 2). Since a circuit is formed from (70) to the receiver (22), an electrical

signal may be served at the receiver by gaining contact with the connection pins at the other side of the detachable wall part.

It would have been obvious to one of ordinary skill at the time of applicant's invention to use Arndt's teaching of electrical connection pins on the wall part as well as soldering points and using it for the connection to the receiver, because the combination would have eliminated the need for an aperture in the support structure of Gore's communication device, achieving the isolation from outside forces as desired by Gore (Gore: Col 1, lines 48-50).

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bøgeskov-Jensen, US Patent No. 6,522,764, published on 2/18/2003 (Hereby Bøgeskov-Jensen) as applied to claim 1 above, in view of Arndt et al., US Patent No. 5,204,917, published on 4/20/1993 (hereby Arndt).

15. As to claim 3, Bøgeskov-Jensen discloses a communication device (Fig. 3). Bøgeskov-Jensen does not expressly disclose that electrical connection pins are provided, which traverses the detachable wall part, such that soldering points on the receiver are connectable to connection pins at one side of the detachable wall part in order that an electrical signal may be served at the receiver by gaining contact with the connection pins at the other side of the detachable wall part, although Bøgeskov-Jensen does disclose connection terminals leading from the power supply to a wall (Col. 3, lines 20-23). Bøgeskov-Jensen is silent as to how the receiver is connected.

Arndt discloses in Fig. 6, a communications device where electrical connection pins are provided which traverses the detachable wall part (70), such that soldering points on the receiver are connectable to connection pins at one side of the detachable wall part. The terminals that are external to the detachable wall part lead to internal terminals (68), which then lead to wires (24), which is connected to receiver (22) (Shown in Fig. 2). Since a circuit is formed from (70) to the receiver (22), an electrical signal may be served at the receiver by gaining contact with the connection pins at the other side of the detachable wall part.

It would have been obvious to one of ordinary skill at the time of applicant's invention to use Arndt's teaching of electrical connection pins on the wall part as well as soldering points. Using the known technique of a connection pins and soldering points on the external part of a cover to connect to a receiver to provide for ease of assembly and repair (Arndt: lines 54-55) would have been obvious to one of ordinary skill.

16. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenstand, US Patent No. 3,359,377, published on 12/19/1967 (Hereby Rosenstand) as applied to claim 1 above, in view of Sugino et al., US Patent No. 5,895,607, published on 4/20/1999 (hereby Sugino).

17. As to claim 4, Rosenstand teaches a communication device (Fig. 5). However, Rosenstand does not expressly disclose that the walls forming part of the casing and/or the detachable wall parts comprise a fibre reinforced polymer, although the need for

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strength is disclosed (Col. 2, lines 1-2). However, the use of a fibre reinforced polymer as a casing material for electronics is well known in the art.

Sugino teaches a material to be used for casing in electronic devices (Col. 1, lines 7-9), composed of a fiber-reinforced plastic composition, corresponding to a fibre reinforced polymer.

It would have been obvious to one of ordinary skill at the time of applicant's invention to use Sugino's fiber-reinforced plastic composition as the casing in the communication device of Rosenstand. Using the known composition of a fiber-reinforced plastic as a casing, to provide impact resistance (Sugino: Col. 2, lines 38-39) desired in the communication device of Rosenstand (Rosenstand: Col. 1: lines 7-9) would have been obvious to one of ordinary skill.

18. As to claim 5, the combination of Rosenstand in view of Sugino teaches that the fibre content of the casing is between 40% and 60% by weight (Col. 2, lines 53-55). Sugino discloses that the weight ratio of fiber to polymer ranges from 10:90 (11%) to 45:55 (82%).

19. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bøgeskov-Jensen, US Patent No. 6,522,764, published on 2/18/2003 (Hereby Bøgeskov-Jensen) as applied to claim 1 above, in view of Sugino et al., US Patent No. 5,895,607, published on 4/20/1999 (hereby Sugino).

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20. As to claim 4, Bøgeskov-Jensen discloses in Fig. 2 a communication device. Bøgeskov-Jensen does not expressly disclose that the walls forming part of the casing and/or the detachable wall parts comprise a fibre reinforced polymer, although Bøgeskov-Jensen teaches that the casing must be suited for greater strength and impact resistance. However the use of a fibre reinforced polymer as a casing material for electronic devices is well known in the art.

Sugino teaches a material to be used for casing in electronic devices (Col. 1, lines 7-9), composed of a fiber-reinforced plastic composition, corresponding to a fibre reinforced polymer.

It would have been obvious to one of ordinary skill at the time of applicant's invention to use Sugino's fiber-reinforced plastic composition as the casing in the communication device of Bøgeskov-Jensen. Using the known composition of a fiber-reinforced plastic as a casing, to provide the impact resistance (Sugino: Col. 2, lines 38-39) desired in the communication device of Bøgeskov-Jensen (Bøgeskov-Jensen: Col. 2: lines 1-3) would have been obvious to one of ordinary skill.

21. As to claim 5, the combination of Bøgeskov-Jensen in view of Sugino teaches that the fibre content of the casing is between 40% and 60% by weight (Col. 2, lines 53-55). Sugino discloses that the weight ratio of fiber to polymer ranges from 10:90 (11%) to 45:55 (82%).

22. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gore et al., US Patent No. 4,620,605, published on 11/4/1986 (Hereby Gore), as applied to claim 1 above, in view of Sugino et al., US Patent No. 5,895,607, published on 4/20/1999 (hereby Sugino).

23. As to claim 4, Gore discloses a communication device (Fig. 2). Gore does not expressly disclose that the walls forming part of the casing and/or the detachable wall parts comprise a fibre reinforced polymer. However, the use of a fibre reinforced polymer as a casing material for electronic devices is well known in the art.

Sugino teaches a material to be used for casing in electronic devices (Col. 1, lines 7-9), composed of a fiber-reinforced plastic composition, corresponding to a fibre reinforced polymer.

It would have been obvious to one of ordinary skill at the time of applicant's invention to use Sugino's fiber-reinforced plastic composition as the casing in the communication device of Gore. Using the known composition of a fiber-reinforced plastic as a casing, to provide impact resistance (Sugino: Col. 2, lines 38-39), and reduced weight (Col. 2, lines 38-39) would have been obvious to one of ordinary skill.

24. As to claim 5, the combination of Gore in view of Sugino teaches that the fibre content of the casing is between 40% and 60% by weight (Col. 2, lines 53-55). Sugino discloses that the weight ratio of fiber to polymer ranges from 10:90 (11%) to 45:55 (82%).

25. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenstand, US Patent No. 3,359,377, published on 12/19/1967 (Hereby Rosenstand), in view of Meyer, US Patent No. 5,708,720, published on 1/13/1998 (hereby Meyer).

26. As to claim 6, Rosenstand teaches a communications device (Fig. 5). However, Rosenstand does not explicitly disclose that a flexible gasket is provided between the wall parts forming part of the casing and the detachable wall part. However using a flexible gasket to seal the casing and a detachable wall part is well known in the art.

Meyer teaches a flexible gasket (Fig. 5, 15) that is provided between the wall parts forming part of the casing (3) and the detachable wall part (2). Meyer discloses that the gasket is elastic (Col. 2, lines 60-61), corresponding to being flexible.

It would have been obvious to one skilled in the art at the time of applicant's invention to include a flexible gasket as taught by Meyer, to create a more effective seal between the wall parts forming part of the casing (33) and the detachable wall part (34), in order to achieve the benefits of preventing electromagnetic interference (Meyer: Col. 1, lines 49-52), as well as protection from foreign particles such as dust or sweat (Meyer: Col. 1, lines 54-56).

27. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gore et al., US Patent No. 4,620,605, published on 11/4/1986 (Hereby Gore), in view of Arndt et al., US Patent No. 5,204,917, published on 4/20/1993 (hereby Arndt).

28. As to claim 8, Gore teaches a method for producing a hearing aid of the behind the ear type (Fig. 3). A top shell part and a lower shell part are joined to form a hearing aid casing (Fig. 3) enclosing electrical components (Col. 3, lines 67-68). There is an amplifier and other circuitry, corresponding to electrical components. A receiver (17) is fastened to a detachable wall part (21). A sound outlet orifice in the detachable wall part (the detachable wall part opens up on the side of (13)), is connected to the sound outlet of the receiver (11). The sub assembly of receiver (17) and detachable wall part (21) is introduced into either top or lower shell part and fastened thereto to form an air tight receiver enclosure. (Col. 4, lines 59-61). The receiver enclosure is acoustically isolated, corresponding to air and sound tight.

It is noted, however, that Gore does not teach that electric connections between the receiver and through going connection pins in the detachable wall part are established. On the other hand, Arndt teaches that electric connections between the receiver (Fig. 6, 24) and connection pins in the detachable wall part (64) are established (70). The pins (70) in the detachable wall part make an electrical circuit with the receiver (22) via wires (24).

It would have been obvious to one skilled in the art at the time of applicant's invention to use external and internal connection pins on the receiver enclosure as

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taught by Arndt to connect the receiver, because the combination would have given the predictable result of better acoustically isolating the receiver (Arndt: Col. 7, lines 58-63) as desired by Gore (Gore: Col. 4, lines 59-61).

Conclusion

The prior art made of record

- | | | |
|----|------------------|------------------|
| a. | US Patent Number | 6,522,764 |
| b. | US Patent Number | 4,620,605 |
| c. | US Patent Number | 5,204,917 |
| d. | US Patent Number | 5,895,607 |
| e. | US Patent Number | 3,359,377 |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan C. Robinson whose telephone number is (571) 270-3956. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran, can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan Robinson

/Suhan Ni/
Primary Examiner, Art Unit 2615